

REMARKS

This amendment is submitted in response to the Examiner's Action dated April 9, 2002. Applicant has amended the claims and all arguments proffered herein are in reference to the claims in their amended form. The amendments are fully supported within the Specification, and Applicant respectfully requests entry of the amendments to the claims.

OBJECTION TO THE DRAWINGS

The Examiner notes that the drawings filed with the Application have been objected to by the draftsperson. Applicant submits herewith an amended Figure 2A with the label "Figure 2" removed. This amended overcomes the specific drawing objection. Formal drawings will be provided when all pending claims are allowed, and Applicant respectfully requests that further objections to the drawings be held in abeyance until the claims have been allowed.

CONCISE DESCRIPTION OF APPLICANT'S INVENTION

Applicant's invention provides a product locator unit that enables (1) automatic, localized identifying of pre-selected (desired) products within the vicinity of a customer in a retail environment and (2) electronic storage and redemption of coupons/discounts associated with the desired products being purchased. The product locator unit may be attached to the shopping aid (i.e., shopping cart or basket) being utilized by a customer and may comprise a base and a portable unit. Identification data related to the customer desired products are stored within the product locator unit along with any associated electronic coupon/discount information.

According to the illustrative embodiment, an input mechanism (such as a swipe card) is utilized to enter the product ID and coupon information into storage of the product locator unit. The coupon/discount information is thus in electronic form and may be linked to the corresponding product prior to the user/customer going to the retail environment. The product locator unit comprises an IR receiver with which it receives IR signals containing identification information about products located in vicinity to the unit (or customer).

When a desired product is being purchased at the check-out register, the coupon/discount information is electronically beamed from the product locator unit to the check-out register, which applies the discount to the product. Thus, Applicant's invention enables out-of-store selection and input of coupon and discount information and subsequent electronic redemption so that the shopper does not have to carry around paper coupons obtained from newspapers, coupon mailouts, or computer printouts from the Internet, etc., when shopping.

Key elements within Applicant's claims include: (1) a product locator unit comprising:...(a) an infra red (IR) sensor that receives IR signals with digitized product identification information while said product locator unit is within a location in which said IR signal is being broadcasted;... and (b) means for signaling to said customer that a desired product is within the vicinity of said customer when said program algorithm finds a match; (2) means for providing in-shopping product location *and coupon redemption* services to said customer utilizing said product locator unit, wherein said customer is alerted to the presence of a desired item when that desired item is in the vicinity of said customer" and (3) means for providing remote electronic redemption of coupons associated with said desired products during checkout at a checkout register by beaming said coupon information from said product locator to said checkout register when said desired product is scanned at said checkout register.

CLAIM REJECTIONS UNDER 35 U.S.C. § 102

At paragraph 4 of the Office Action, Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Ogasawara. Ogasawara does not anticipate Applicant's invention because Ogasawara fails to teach or disclose each element recited in Applicant's claims. Specifically, Ogasawara does not teach or suggest the product locator unit and the features associated therewith. Notable among these features are: (1) an IR receiver for receiving infra red (IR) signals comprising localized product information; (2) (means for) alerting the customer when a desired item is in the vicinity of the customer; and (3) (means for) enabling remote automatic redemption of electronic coupons at the check-out register via the product locator unit.

Ogasawara provides a mobile shopping terminal for organizing a customer's movement through a retail facility (Abstract). A customer's desired products are read from an IC card. Using the mobile terminal, the customer manually scans a product within the retail facility. Once the product is scanned, the customer's present location and the location of and direction to the nearest desired product is determined, i.e., relative distance metrics are calculated using the store-wide database of product locations, and a path is provided to the customer to the next closest item desired (Abstract and Summary).

Cited sections of Ogasawara (e.g., column 6, lines 25- 41 and lines 37-59 and column 9, lines 8-15) provide a customer location recognition feature by which a customer's current location is determined (when the customer **manually scans a product** at that location) and the current location is then utilized to calculate and provide directions to other desired items (in a different location) and alert the customer of promotional items located within the proximate location. However, none of these sections teach or suggest providing the customer with current location-based alerts indicating when a desired product is in the vicinity of the customer. Column 5, lines 19-24 describes communication between the mobile personal shopping terminal and the source terminal/server via a wireless transceiver (transmitter and receiver and RF antenna) that transmits and receives RF signals, but does not teach receiving and/or projecting IR signals with localized product information within a retail environment and features associated therewith. Finally, column 15, lines 51-column 16, lines 11 teaches downloading and displaying of promotional items based on the customer's profile information. That section does not teach or suggest storing electronically redeemable coupons/discounts or the actual electronic redemption of coupons/discounts at the check out terminal via a product locator unit.

From the above, it is clear that Ogasawara fails to teach or suggest several key elements recited within Applicant's claims. The standard for a §102 rejection requires that the reference teach each element recited in the claims. Ogasawara fails to meet this standard and therefore does not anticipate Applicant's invention. Claims 1, 8, and 15 and all claims dependent thereon are therefore allowable.

REDACTED SPECIFICATION

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Paragraph beginning at line 3 of page 1 has been amended as follows:

The present invention is related to the subject matter of co-pending United States Patent Applications entitled "Electronic Redeeming of Coupons and Product Discounts Utilizing a Networked Products Database," filed September 23, 1999, Serial No. 09,404,405 [(IBM Docket No. AT9-99-379)], "Method for Conveying a Location of a Product Within a Defined (Retail) Environment," filed September 23, 1999, Serial No. 09/404,407 [(IBM Docket No. AT9-99-526)], "Personal Shopping Tool for Aiding in Product Location and Discount Redemption," filed September 23, 1999, Serial No. 09/404,272 [(IBM Docket No. AT9-99-527)], "Method and System for Identifying a Location of a Product in a Retail Environment," filed September 23, 1999, Serial No. 09/404,406 [(IBM Docket No. AT9-99-546)], assigned to the assignee herein named. The contents of the above-mentioned co-pending patent applications are incorporated by reference herein.

Paragraph beginning at line 31 of page 4 has been amended as follows:

The fast growing web activity has led many companies to advertise products on the Internet. However, most companies which are engaged in the retail business still spend lots of their resources on the paper coupon system described above. There is presently no way to effectively provide coupons via the web which a user can select without having to print the coupon off the site and go through the time consuming process described above.

REDACTED CLAIMS

1 1. (Amended) A method for providing a location of products to a customer in a retail environment,
2 said method comprising the steps of:

3 attaching a product locator unit to a shopping aid that is utilized within said retail
4 environment, said product locator unit having an access point for entering a customer ID, a storage

location for electronically storing a list of customer desired products, an infra red (IR) receiver that receives IR signals with localized product information at specific locations in which said IR signal is broadcasted [a signaling mechanism for alerting said customer to a location of a desired product], [and] a program algorithm for comparing said localized product information with product identifiers (IDs) of said customer desired products, and, a signaling mechanism for alerting said customer to a location of [correctly identifying said] a desired product, said location being identified by said received IR signal;

[receiving a user specified desired product, said desired product being linked to said customer ID;

comparing said desired products to products found in particular locations of said retail environment to determine a location of said desired products;] and

enabling in-shopping signaling [signaling] to said customer of the [location of said] presence of a desired product when said customer is in the vicinity of said desired product, wherein said signaling is completed responsive to a (1) receipt of an IR signal at a particular location by the IR receiver of the product locator unit; and (2) correct matching of the ID of said desired product with said localized product information within said IR signal received [via said signaling mechanism].

2. (Amended) The method of Claim 1, wherein said product locator unit in said attaching step [is comprised of] comprises a base unit and a portable unit, said [attaching] enabling step further comprising [the steps of]:

receiving product signals being projected within said retail environment utilizing a signal sensor of said portable unit; and

transmitting said product signals back to said base unit, wherein said base unit completes the comparison of said product signals with said product IDs of said desired products; and

8 signaling back to said portable unit when said comparing step results in a match, wherein said
9 customer is immediately alerted via said portable unit of a location of said desired product.

1 3. (Amended) The method of Claim [2]1, further comprising[the steps of]:

2 [receiving at said base unit said product signals transmitted by said portable unit utilizing a
3 receiver of said base unit;

4 comparing said product signals with said desired products to determine a match utilizing said
5 program algorithm;

6 signaling back to said portable unit when said comparing step results in a match; and

7 in response to said signaling step, alerting said customer via said portable unit of a location
8 of said desired product]

9 enabling storage of electronic coupons along with said desired products within said product
10 locator unit; and

11 providing remote electronic redemption of coupons associated with said desired products
12 during checkout at a checkout register by beaming said coupon information from said product locator
13 to said checkout register when said desired product is scanned at said checkout register.

1 4. (Amended) The method of Claim 1, [wherein said attaching step] further [comprises the step of]
2 comprising installing a [signaling] signaling mechanism for projecting [a] said digitized product [and
3 location] information within particular areas of said retail environment.

Please cancel Claim 5.

5. Canceled

1 6. (Amended) The method of Claim 1, wherein said [signaling] enabling step includes the step of
2 printing a report for said customer, said report including a list of desired products and their location.

1 7. (Amended) The method of Claim 2, wherein said portable unit [is] has a tag which identifies the
2 particular shopping aid, said [attaching] enabling step includes the steps of:

3 linking said tag to said customer ID following entry of said customer ID in said product
4 locator unit; and

5 remotely identifying said customer ID to a cash register when said tag [approaches] is
6 brought towards said cash register, thereby allowing for the application of product discounts
7 associated with said desired products via [affiliated with] said customer ID.

1 8. (Amended) A system for providing a location of products to a customer in a retail environment,
2 said system comprising:

3 [means for attaching] a product locator unit that is attachable to a shopping aid utilized within
4 said retail environment, said product locator unit comprising: [having]

5 an access point for entering a customer ID;[,]

6 a storage location for storing a list of customer desired products;

7 an infra red (IR) sensor that receives IR signals with digitized product identification
8 information while said product locator unit is within a location in which said IR signal is
9 being broadcasted;

10 [a signaling mechanism for alerting said customer to a location of a desired product,
11 and] a program algorithm for deciphering said digitized product identification information
12 and comparing said digitized product identification information with product IDs of said
13 customer desired products for a match; and

14 means for signaling to said customer that a [correctly identifying said] desired
15 product is within the vicinity of said customer when said program algorithm finds a match

16 [means for receiving a user specified desired product, said desired product being linked to
17 said customer ID;

18 means for comparing said desired products to products found in particular locations of said
19 retail environment to determine a location of said desired products]; and

20 means for [signaling to said customer the location of said desired product via said signaling
21 mechanism] providing in-shopping product location and coupon redemption services to said
22 customer utilizing said product locator unit, wherein said customer is alerted to the presence of a
23 desired item when that desired item is in the vicinity of said customer.

1 9. (Amended) The system of Claim 8, wherein said product locator unit [in said attaching means
2 is comprised of] comprises a base unit and a portable unit, [said attaching means] and further
3 [comprising] comprises:

4 means for receiving product signals being projected within said retail environment utilizing
5 a signal sensor of said portable unit; and

6 means for transmitting said product signals back to said base unit, wherein said base unit
7 completes the comparison of said product signals with said product IDs of said desired products; and

8 means for signaling said portable unit when said comparing results in a match, wherein said
9 customer is immediately alerted via said portable unit of a location of said desired product.

1 10. (Amended) The system of Claim 9, further comprising:

2 means for storing electronic coupon information associated with said desired products;

3 means for providing remote electronic redemption of coupons/discounts associated with said
4 desired products during checkout at a checkout register by beaming said coupon/discount
5 information from said product locator unit to said checkout register when said desired product is
6 scanned at said checkout register

7 [receiving at said base unit said product signals transmitted by said portable unit utilizing a
8 receiver of said base unit;

9 means for comparing said product signals with said desired products to determine a match
10 utilizing said program algorithm;

11 means for signaling back to said portable unit when said comparing means results in a match;
12 and

13 in response to said signaling means, means for alerting said customer via said portable unit
14 of a location of said desired product].

1 11. (Amended) The system of Claim 8, [wherein said attaching means] further [comprises means
2 for installing a signaling] comprising an IR signaling mechanism for projecting [a] product
3 identification [and location] information within specific areas of said retail environment.

1 12. (Amended) The system of Claim 8, wherein said [signaling means includes means for] product
2 locator unit further comprises a display screen for visually displaying a location of a desired product
3 [on a display screen attached to said product locator unit] within the vicinity of said product locator
4 unit.

1 13. (Amended) The system of Claim 8, [wherein said signaling means includes] further comprising
2 means for printing a report for said customer, said report including a list of desired products and their
3 location.

1 14. (Amended) The system of Claim 9, wherein said portable unit [is] has a tag, which identifies
2 the particular shopping aid, said [attaching means includes] system further comprising:

3 means for linking said tag to said customer ID following entry of said customer ID in said
4 product locator unit; and

5 means for remotely identifying said customer ID to a cash register when said tag [approaches]
6 is brought towards said cash register, thereby allowing for the application of product discounts
7 [affiliated] associated with said desired products via said customer ID.

1 15. (Amended) A computer program product for providing a location of products to a customer in
2 a retail environment, said computer program product comprising:

3 a computer readable medium; and

4 program instructions on said computer readable medium for:

5 enabling [attaching] a product locator unit attached to a shopping aid utilized within said
6 retail environment to identify customer desired products located within a vicinity of the shopping
7 aid, signal that said desired product is located in the vicinity, and remotely redeem electronic
8 coupons for said desired product during checkout by beaming coupon data to a checkout register [,
9 said product locator having an access point for entering a customer ID, a signaling mechanism for
10 alerting said customer to a location of a desired product, and a program algorithm for correctly
11 identifying said desired product;

12 receiving a user specified desired product, said desired product being linked to said customer
13 ID;

14 comparing said desired products to products found in particular locations of said retail
15 environment to determine a location of said desired products; and

16 signaling to said customer the location of said desired product via said signaling mechanism].

1 16. (Amended) The computer program product of Claim 15, wherein said product locator unit is
2 comprised of a base unit and a portable unit, said program instructions [for said attaching step]
3 further comprising program instructions for:

4 receiving product signals being projected within said retail environment as input[utilizing
5 a signal sensor of said portable unit]; [and]

6 encoding and transmitting said product signals back to said base unit;.]

7 comparing said product signals with said desired products to determine a match;

8 signaling back to said portable unit when said comparing step results in a match; and

9 in response to said signaling step, alerting said customer via said portable unit of a location
10 of said desired product.

1 17. (Amended) The computer program product of Claim [16] 15, said product locator having an
2 access point for entering a customer ID, a signaling mechanism for alerting said customer to a
3 location of a desired product, and a program algorithm for correctly identifying said desired product,
4 said program product further comprising program instructions for:

5 receiving a list of user specified desired products, said desired product being linked to said
6 customer ID;

7 comparing said desired products to products found in particular locations of said retail
8 environment to determine a location of said desired products; and

9 signaling to said customer the location of said desired product via said signaling mechanism
10 [receiving at said base unit said product signals transmitted by said portable unit utilizing a
11 receiver of said base unit;

12 comparing said product signals with said desired products to determine a match utilizing said
13 program algorithm;

14 signalling back to said portable unit when said comparing step results in a match; and

15 in response to said signalling step, alerting said customer via said portable unit of a location
16 of said desired product].

1 18. (Amended) The computer program product of Claim 15, wherein said program instructions [for
2 said attaching step] further comprises program instructions for [installing a signalling mechanism
3 for projecting a product and location information within said retail environment] receiving a
4 download of coupon data along with product IDs from a database upon entry of said customer ID.

1 19. (Amended) The computer program product of Claim 15, wherein said program instructions for
2 said signalling step includes program instructions for visually displaying a location of a desired
3 product on a display screen [attached to] of said product locator unit.

1 20. (Amended) The computer program product of Claim 15, wherein said program instructions for
2 said signalling step includes program instructions for printing a report for said customer, said report
3 including a list of desired products and their location.

Please cancel Claim 21.

21. Canceled

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Please add new claims 22-24.

1 22. (Newly Added) The method Claim 1, wherein said enabling step comprises receiving a
2 download of product IDs and associated electronic coupon data when said customer ID is entered
3 into said product locator unit.

1 23. (Newly Added) The system of Claim 7, wherein said product locator unit further comprises
2 means for receiving a download of product IDs and associated electronic coupon data when said
3 customer ID is entered into said product locator unit.

1 24. (Newly added) A product locator unit for use within a retail environment, said unit comprising:
2 connection means for connecting said unit to a shopping aid utilized within said retail
3 environment;

4 an access point for entering a customer ID;
5 means for receiving data associated with an electronic list of customer desired products;
6 a storage location for storing said electronic list of customer desired products;
7 an infra red (IR) sensor that receives IR signals with digitized product identification
8 information while said product locator unit is within a location in which said IR signal is being
9 broadcasted;

10 a program algorithm for deciphering said digitized product identification information and
11 comparing said digitized product identification information with product IDs of said customer
12 desired products for a match; and

13 means for signaling to said customer that a desired product is within the vicinity of said
14 customer when said program algorithm finds a match;

15 means for receiving and storing electronic coupon information associated with said desired
16 products;

17 means for providing remote electronic redemption of coupons/discounts associated with said
18 desired products during checkout at a checkout register by beaming said coupon/discount
19 information from said product locator unit to said checkout register when said desired product is
20 scanned at said checkout register.